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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,137	03/08/2005	Tatsuya Deguchi	450100-04774	9407

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William S Frommer
Frommer Lawrence & Haug
745 Fifth Avenue
New York, NY 10151

EXAMINER

HSU, AMY R

ART UNIT	PAPER NUMBER
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2622

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,137	Applicant(s) DEGUCHI ET AL.	
	Examiner AMY HSU	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/19/2007 have been fully considered but they are not persuasive.

Regarding independent claims 1 and 11, the claim language is written broadly enough to interpret the applicant's claimed "scene-reference color space format" to include formats such as sRGB. The "scene-reference color space format" is not known in the art to have a particular meaning, nor does it imply or relate to the scRGB format, as defined in the applicant's specification. The claim language does not define or limit the "scene-reference color space format", and leaves interpretation of the claims to be very broad and can very well include various color space formats. Therefore, the examiner maintains that Parulski et al. (US 7212229) which teaches tone correction performed in the sRGB color space format, anticipates the applicant's limitation involving "scene-reference color space format".

Regarding the amended portion of Claims 1 and 11, Parulski teaches circuitry to convert an image that has been subjected to color interpolation and render according to a color space format for tone correction, as addressed in more detail in the following rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Parulski et al. (US 7212229).

Regarding Claim 1, Parulski teaches a digital still camera (*Col 3 Lines 1-2*) comprising: a first converting circuit that receives image data of an image that is subjected to an automatic white balance correction and converts the image data according to a scene-reference color space format (*Col 5 Lines 38-41 teach the processor 18, performs color interpolation and tone correction by rendering which is converting, by the sRGB color space format. One of ordinary skill in the art recognizes that if this processor performs rendering it includes converting circuitry, one of ordinary skill in the art also recognizes that color interpolation is automatic white balance*), a temporary memory storing the image data for which tone correction is to be performed

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(*Col 3 Lines 26-29*) in the scene-reference color space format (*Col 5 Lines 39-43 teaches the tone correction is in the sRGB color space format*); a removable recording medium (*Fig. 4 reference number 330*) storing the image data of the image for which the tone correction is to be performed in the scene-reference color space format (*Col 5 Lines 44-46*); and a tone correction circuit (*Fig. 1 reference number 18 and Col 5 Lines 38-39*) wherein the image data is read out from the temporary memory or the recording medium to perform the tone correction for the readout image data in the tone correction circuit (*Col 3 Lines 26-29*), and the image data resulting from the tone correction is recorded in the recording medium (*Col 5 Lines 44-46*).

Claim 11 is a method claim enabling the limitations of Claim 1 and is therefore similarly rejected.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-10, 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parulski et al. (US 7212229) in view of Takemoto (US 7081918).

Regarding Claim 2, Parulski teaches the digital still camera according to claim 1, and teaches an image processor which accomplishes tone correction (*Fig. 1 reference number 18*), and teaches the image data read from the temporary memory is supplied to the tone correction circuit and the resulting processed and enhanced image data is recorded in the recording medium (*as addressed with Claim 1*). However Parulski is silent on more in depth and specific details of the image processor and is silent on the details of tone correction. Therefore one of ordinary skill in the art would turn to prior art to teach well known details of tone correction.

Takemoto teaches a tone correction means (*Fig. 1 reference number 8*) which includes a white-balance fine tuning circuit for fine-tuning a white balance of the image data (*Fig. 1 reference number 8-b, a white balance processing unit. 8-b is considered a fine tuning circuit because it takes the input of 8-a and subsequently processes white balancing as a result of the input of 8-a*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Parulski with that of Takemoto to specifically include a fine-tuning white balance means as a part of the tone correction as this is a well known process.

Regarding Claim 3, Parulski teaches the digital still camera according to claim 2, further comprising: a display (*Fig. 4 reference number 332*) , wherein the image data output from the tone correcting circuit is displayed (*Col 5 Lines 54-57*), but fails to

teach fine tuning circuit for white balancing as part of the tone correction circuit. This is addressed with Claim 2.

Regarding Claim 4, Parulski teaches the digital still camera according to claim 1, but is silent on details of the tone correction circuit. One of ordinary skill in the art would look to prior art for what is well known about tone correction.

Takemoto teaches a tone correction circuit (*Fig. 1 reference number 8*) with a plurality of selectable tone correction characteristics and corrects the readout image data with respect to one of the tone correction characteristics (*Col 10 Lines 50-59 teaches selectable tone types, or characteristics, for specific conditions such as for cloudy weather, and accordingly tone correction is performed based on the selection of tone type*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Parulski with that of Takemoto to add the well-known features of tone correction in order to optimize image processing and enhancement for all different common shooting conditions.

Regarding Claim 5, Parulski teaches the digital still camera according to claim 4, further comprising: a display (*Fig. 4 reference number 332*) but fails to teach details of the tone correction circuit. One of ordinary skill in the art would look to prior art for what is well known about tone correction.

Takemoto further teaches an operation unit of a GUI (*Fig. 1 reference number 5*) for selecting one of the tone correction characteristics (*Col 10 Lines 50-53, the tone type is input by the input means, 5*), wherein the operation state in the operation unit is displayed in the display (*Col 11 Lines 3-6 teaches the operation state is displayed. The operation state is the correction of the tone curves input*).

It would have been obvious to modify the teaching of Parulski with that of Takemoto for the same reason as Claim 4.

Regarding Claim 6, Parulski teaches the digital still camera according to claim 4, but fails to teach details of the tone correction circuit. One of ordinary skill in the art would look to prior art for what is well known about tone correction.

Takemoto further teaches a statistical analysis is performed for a luminance component of the readout image data (*Fig. 2 which is produced by Fig. 1 reference number 8-a*), and wherein one of the tone correction characteristics is selected according to the analysis result to perform the tone correction (*Col 12 Lines 12-26*).

It would have been obvious to modify the teaching of Parulski with that of Takemoto for the same reason as Claim 4.

Regarding Claim 7, Parulski teaches the digital still camera according to claim 4, but fails to teach details of the tone correction circuit. One of ordinary skill in the art would look to prior art for what is well known about tone correction.

Takemoto further teaches the apparatus can receive a selected tone type via the input (*Col 10 Lines 50-59*) and also teaches examples of the tone types such as for backlight, for flash photographing, for cloudy weather. It would have been obvious to one of ordinary skill in the art at the time of the invention that a characteristic in which an image has high average luminance, high contrast, and high saturation, could be one of the tone types, or tone characteristics, in addition to the ones taught by Takemoto. Takemoto teaches the concept of selecting tone types with different characteristics. For example cloudy weather and flash photographing would involve different levels of saturation, contrast, and luminance. Adding additional variations of these combinations does not change the inventive concept taught by Takemoto.

It would have been obvious to modify the teaching of Parulski with that of Takemoto for the same reason as Claim 4.

Regarding Claim 8, Parulski teaches the digital still camera according to claim 4, but fails to teach details of the tone correction circuit. One of ordinary skill in the art would look to prior art for what is well known about tone correction.

Takemoto further teaches a characteristic in which an image output to a display or a printer (*Fig. 1 reference number 13 and 14*) has high average luminance and high contrast, as one of the tone correction characteristics (*as addressed with Claim 7*).

Claim 9 claims the digital still camera according to claim 4, wherein the digital still camera has a characteristic in which the tone of a shadow or a highlight of the image is

preferentially corrected, as one of the tone correction characteristics. As stated in the paragraph addressing Claim 7, Takemoto teaches the concept of different tone types, which affect tone correction, adding different variations does not change the inventive concept. Claim 9 is rejected similarly to Claim 7.

Regarding Claim 10, Parulski teaches the digital still camera according to claim 1, but fails to teach details of the tone correction circuit. One of ordinary skill in the art would look to prior art for what is well known about tone correction.

Takemoto further teaches a combination of an S-shaped function and an inverted S-shaped function is used as a tone correction characteristic (*Col 12 Lines 23 and Fig. 2, quadrant I and III show the S-shaped function and quadrant IV shows the inverted S shaped function*).

It would have been obvious to modify the teaching of Parulski with that of Takemoto for the same reason as Claim 4.

Claims 12-19 are method claims enabling the limitations of Claims 2, and 4-10 respectively and are therefore similarly rejected to the corresponding apparatus claim.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy Hsu whose telephone number is 571-270-3012. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amy Hsu
Examiner
Art Unit 2622

ARH 3/14/08

/Lin Ye/

Supervisory Patent Examiner, Art Unit 2622